REMARKS

Claims 1-15 and 58-60 remain in this application. Claims 1, 12 and 15 were amended. Claims 11 and 16-57 were canceled. Claims 4, 8, and 9 stand withdrawn. Claims 58-60 are newly submitted.

Applicant respectfully requests that this amendment be entered on the grounds that it places the case in condition for allowance, or simplifies the issue on appeal.

Claim 1 was amended to recite that "the bulk diffuser comprises a diffusive material configured to scatter light within the diffusive material." Support for this amendment is found in claim 16 as filed, and in paragraphs [0011] and [0032] of the application as filed. No new matter was added. Amended claims 12 and 15, and newly added claims 58-60 are also fully supported by the application as filed, and add no new matter.

Claims 1-3, 5-6, and 11-15 were rejected as being unpatentable over Abileah et al. (US5629784, hereinafter "Abileah") in view of Silverstein et al. (US5442467, hereinafter "Silverstein"), Abileah in view of Sanelle et al. (US6181394, hereinafter "Sanelle"), and/or Abileah in view of Sanelle and Varaprasad et al. (US6087012, hereinafter "Varaprasad"). Applicant respectfully disagrees. The cited references do not, individually or in any combination, teach, suggest, or motivate a system having all the elements of the amended claims.

More particularly, claim 1 was amended to recite that the bulk diffuser comprises a diffusive material configured to scatter light **within** the diffusive material. In contrast, the diffuser 21 of Abileah has a roughened or light scattering surface. (Abileah, Figs. 1(a), 2, and 3; Col. 11, lines 54-62; Col. 13, lines 16-19; Col 15, lines 6-9; Col. 24, lines 6-14 and 58-67.) As such, diffuser 21 does not satisfy the recitation of claim 1 that the bulk diffuser comprises a diffusive materal configured to scatter light within the diffusive material. Moreover, this inadequacy of Abileah is not overcome by combining Abileah with any of the cited references as none of the other cited references teach a bulk diffuser as claimed.

The Office Action asserts that Abileah discloses a system wherein a bulk diffuser comprises a holographic diffusive material configured to diffuse light within the diffusive material. Applicant respectfully disagrees. Although Abileah discloses the use of a holographic diffuser, a holographic diffuser is not a bulk diffuser that comprises a diffusive material configured to scatter light within the diffusive material. Instead, a holographic diffuser comprises a surface relief hologram, possibly embossed into a deformable material such as acrylic, polycarbonate or some other plastic. As such, a holographic diffuser comprises a textured surface and scatters light at that surface rather than within the diffuser.

The characteristics of the holographic diffuser of Abilea were characterized by the Board of Patent Appeals and Interferences in Ex Parte Guenter Abersfelder et al. (Appeal No. 2002-1849, Application No. 09/116,710, heard April 16, 2003) in the following manner:

> "From our review of Abileah, we find that Abileah is directed to a liquid crystal display having an enlarged viewing zone (col.1, lines 5 and 6). Abileah discloses (col. 2, lines 37-41) that it is desirable to have an LCD reflect as little ambient light as possible. ... The optional holographic diffuser 21, like facets 19 of optical film 17 of Abileah, act to diffuse or spread the image of the liquid crystal display in a large number of directions, ***as the image is reflected from light scattering or roughened surface 133 of diffuser 21***, so that the sharp images of the display are clearly viewable over a wide range of horizontal and vertical viewing directions (col. 10, line 54 through col. 11, line 3, and col. 13, lines 12-24). It is further disclosed (col. 13, lines 25-31) that:
>
> > With respect to ambient light, optional diffuser acts to disperse the incoming ambient rays which are thereafter substantially collimated by faceted film 17. The substantial collimation of the ambient light allows it to proceed directly (i.e., not at an angle) into the LC cell. This is believed to reduce the amount of ambient reflection off of the display panel.

> Abileah further discloses (col. 13, lines 45-49) that the provision of the diffuser 21 allows the viewing envelope or zone of the display to be enlarged in both the horizontal and vertical viewing angle directions. From these teachings of Abileah, we find that Abileah discloses (col. 14, lines 16-18) providing an anti-reflective coating 35 ***on the exterior roughened surface of diffuser 21*** to decrease the ambient light reflection from the display panel." [Emphasis Added]

Claim 1 also recites "a transparent panel having a backside and an **anti-glare** front surface configured to diffuse ambient light...." [Emphasis Added]. The Office Action asserts that this recitation is satisfied by the anti-reflective front surface of Abileah. Applicant respectfully disagrees as "anti-glare" is not synonymous with "anti-reflective".

An anti-glare surface is a diffuse surface that reflects light in all directions, i.e. that scatters light. A perfectly diffuse surface reflects light equally in all directions. This definition is consistent with the claim language which recites an anti-glare surface configured to diffuse ambient light. In contrast, an anti-reflective surface is typically a thin film optical layer deposited to minimize reflectance.

The difference between anti-glare surfaces and anti-reflective surfaces is also described in this application. In particular, paragraph [0029] sates, "the anti-glare layer 110 reduces specular (mirror) reflections, and the anti-reflective layer 112 reduces the total front surface reflection. For the present technique, the anti-glare layer 110 may be an etched (matte) surface of the transparent panel 108, and the anti-reflective layer 112 may be an optical coating over the etched (matte) surface." The difference between anti-glare surfaces and anti-reflective surfaces is also recognized by industry as anti-glare coatings and anti-reflective coatings can be purchased as separate products.

Furthermore, claim 6 recites that the "anti-glare front surface comprises a surface texture." As such, the bulk diffuser is used in combination with a transparent panel having a backside and a **textured** anti-glare front surface. As a result, in order satisfy claim 6, Abileah would have to teach a display system that comprises both a bulk diffuser and a textured anti-glare front surface.

Abileah fails to do so. More particularly the Office Action asserts that diffuser 21 equates to the claimed bulk diffuser. However, if diffuser 21 of Abileah actually did equate to the claimed bulk diffuser, Abileah would not have a textured anti-glare front surface in addition to the bulk diffuser as claimed. Moreover, this inadequacy of Abileah is not overcome by combining it with any of the cited references. As such claim 6 is patentable over the cited references.

Claim 10 recites in part: "the bulk diffuser is configured to reduce undesirable optical effects caused by the surface texture." As Abileah does not teach a bulk diffuser in combination with a textured anti-glare surface, it cannot satisfy the recitation of claim 10. However, even if it did have the claimed bulk diffuser and textured anti-glare surface of claim 6, the bulk would have to satisfy the recitations of claim10.

Claims 12 and 15 have been amended to recite that an index matched bond material is used on both sides of the bulk diffuser. Although index matched bond materials have been used in some instances, they have not been used to on both sides of a diffuser having a textured surface such as is taught by Abileah. This follows from the fact that the use of an index matched bond material on a surface textured to diffuse light tends to greatly decrease, and possibly eliminate, the effectiveness of the surface to diffuse light. The effectiveness of the surface is dependent on part on the difference between the index of refraction of the surface and the adjoining material, and bonding an index matched material to the surface reduces that difference.

Newly added claim 58 recites the use of two diffusers, one on each side of the transmissive display screen. Such a display system is not taught, suggested, or motivated by any of the cited references taken individually or in combination.

Newly added claim 59 recites a bulk diffuser bonded to a glass panel opposite a surface of the panel which, in addition to being textured, diffuses ambient light and has the textured surface coated with an anti-glare coating. This is not taught, suggested, or motivated by any of the cited references taken individually or in combination.

Newly added claim 60 recites a system formed using a particular method of bonding the bulk diffuser to one of the transmissive display screen and the transparent panel. A system formed

according to this method is not taught, suggested, or motivated by any of the cited references taken individually or in combination.

In light of the above amendments and remarks, Applicant believes that the case is now in condition for allowance, and an early notification of the same is requested.

If the Examiner believes that a telephone interview will help further the prosecution of this case, he is respectfully requested to contact the undersigned attorney at the listed telephone number.

Applicant has substituted Albin Gess and the attorneys associated with customer number 21611, of which the undersigned is one, in place of Applicant's prior representative(s). The Power of Attorney form and Revocation of Power of Attorney form that effect the substitution accompany this amendment,

I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class Mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on September 21, 2004.

By: James Lee

Signature

Dated: September 21, 2004

Very truly yours,

SNELL & WILMER L.L.P.

David J. Zoetewey
Registration No. 45,258
1920 Main Street, Suite 1200
Irvine, California 92614-7230
Telephone: (949) 253-4904